



US Army Corps
of Engineers.

SAN FRANCISCO DISTRICT

PUBLIC NOTICE

Regulatory Branch
333 Market Street
San Francisco, CA 94105-2197

NUMBER: 278350N DATE: 27 May 2005
RESPONSE REQUIRED BY: 30 June 2005

PERMIT MANAGER: David A. Ammerman

PHONE: 707-443-0855

Email: David.A.Ammerman@usace.army.mil

1. INTRODUCTION: Roger and Johanna Rodoni, P.O. Box 43, Scotia, CA 95565-0043, through their agent, Aldaron Laird (Contact: Aldaron Laird, Environmental Planner at 707-825-8770), has applied for a U.S. Army, Corps of Engineers (Corps) permit to discharge fill into waters of the United States including adjacent diked former tidelands in connection with implementation of the Lower Rocky Gulch Salmonid Access and Habitat project. The project involves but is not limited to: (1) Removal of an existing levee and setback construction of a new earthen levee; (2) Removal of sediment and widening of stream channel in tidal and non-tidal reaches of Rocky Gulch; (3) After-the-fact replacement of an old tide gate system with a new tide gate system; (4) Excavation and creation of new tidal and non-tidal stream reaches or channels; (5) Periodic excavation of the Lower Rocky Gulch tidal and non-tidal stream channels to prevent pasture flooding and maintain channel capacity over a **ten-year permit duration**; (6) Placement of rock slope protection near the new tide gate; and (7) Installation of temporary dewatering cofferdams, diversion pipes and other devices during construction. The project site is located on Lower Rocky Gulch, a tributary to Humboldt Bay, in the Bayside area between the Cities of Arcata and Eureka, in Humboldt County, California. This application is being processed pursuant to the provisions of Section 404 of the Clean Water Act (33 U.S.C. Section 1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. Section 403).

2. PROPOSED PROJECT:

Project Site: The project will be located on diked former tidelands, and wetlands adjacent to Lower Rocky Gulch on private agricultural lands owned by Roger and Johanna Rodoni (APN #s 501-091-002, 501-091-004, 501-181-001, 501-181-009, and 501-261-014) (See Sheets 1 and 2 of 8). The project reach of Lower Rocky Gulch begins in the southeast corner from the west side of Old Arcata Road near its intersection with Rocky Gulch Road and the stream flows northwest to within 600 feet east of Highway 101 at the recently replaced tide gate in the northwest corner of the project reach. The source of current site conditions is from the *Biological Assessment Lower Rocky Gulch Salmonid Access and Habitat Restoration Project: Bayside, Humboldt County, California*, prepared by Aldaron Laird, dated February 2005, unless otherwise indicated in this Public Notice.

Current conditions at the site consist of approximately 5,500 feet of stream channel, associated adjacent salt marsh and riparian corridor. The upper 2,000 feet of stream downstream of Old Arcata Road is narrowly channelized between existing earthen dikes and the Old Arcata Road embankment (See Sheet 3 of 8). Lower Rocky Gulch has substantial deposits of fine sediment originating from the upper watershed reaches of Rocky Gulch east of Old Arcata Road and a nearly continuous, dense riparian corridor of willow and alder. In the 2004 and 2005 winter seasons, the dike in this upper

reach was breached in several locations, allowing stream discharge to flow onto the pasture, making substantial portions of this pasture unusable for livestock grazing. The lower 3,000 feet of stream channel runs through straight, channelized sections of agricultural pasture with sharp 90-degree bends. Dikes along the left or south bank of Rocky Gulch contain most tides (although extreme high tides in 2005 overtopped the dike) and flood-flows, including tributary input from three small perennial streams. At the downstream end of Rocky Gulch, the stream flows through a recently upgraded tide gate and joins Washington Gulch (which essentially parallels Rocky Gulch from east to west across the diked former tidelands) to form Brainerd Slough upstream of Highway 101. In 2005, the dike along the south side of Washington Gulch was breached in several locations causing extensive flooding of the salt marshes and pasture in the project area.

The applicants use these former tidelands year-round to graze cattle. The maintenance of reclaimed tidelands for agricultural use requires constant repair of dikes, tide gates, drainage ditches, and stream channels. During the normal course of agricultural use, vehicles and equipment regularly traverse the pasture, which, for the most part is a seasonal wetland, while the areas adjacent to the tidal reaches of Rocky Gulch are former tidelands, which still retain salt marsh plant species. Cattle have access to, and do graze, the seasonal wetland pasture, diked former tidelands, riparian corridor, willow swamp, salt marsh and upland areas outside of Corps jurisdiction. Rocky Gulch is the primary source of water for these cattle, and there are several stream crossings and trails that they habitually use along the stream corridor. Aldaron Laird, dated February 2005, describes additional details of the project site in the Biological Assessment. Copies of this biological assessment can be obtained by contacting the Eureka Office of the Corps (see first or last pages of Public Notice).

Three wetland habitats were identified by Aldaron Laird adjacent to or bordering Rocky Gulch: coastal scrub, riparian forest, and freshwater marsh (Sheet 4 of 8). However, a fourth category would be salt marsh. Both the salt marsh and freshwater marsh components could be lumped together as former diked tidelands that were formed near the turn of the century or later during reclamation of agricultural lands surrounding Humboldt Bay. These tidelands are common in the Bayside area and Arcata Bottoms around Humboldt Bay and in the Eel River tidal estuary. Common salt marsh plant species prevalent adjacent to the tidal reaches of Lower Rocky Gulch include: Salt grass (*Distichlis spicata*), pickleweed (*Salicornia virginica*), coastal hairgrass (*Deschampsia caespitosa* ssp. *Caespitosa*), and dense-flowered cordgrass (*Spartina densifolia*). The cordgrass is an invasive but obligate salt marsh plant not native to Humboldt County marshes.

The most predominant freshwater wetland area is grazed wetland habitats, also known as wetland pasture (See Sheet 4 of 8). These areas have native and non-native introduced forage plants as well as remnant vegetation from prior to grazing activity. Dominant plant species on this pasture is velvet grass (*Holcus lanatus*), annual bluegrass (*Poa annua*), water fox tail (*Alopecurus geniculatus*), sweet vernal grass (*Anthoxanthum odoratum*), annual ryegrass (*Lolium perenne*), creeping bent grass (*Agrostis stolonifera*), perennial trefoil (*Lotus corniculatus*), buttercup (*Ranunculus repens*), curly dock (*Rumex crispus*), creeping white clover (*Trifolium repens*), pacific silverweed (*Potentilla anserina*), and soft rush (*Juncus effuses*).

All of the above plants are commonly found in various plant community combinations in the Arcata Bottoms, Bayside Area and Ferndale Bottoms, including Eel River Estuary. Areas that receive more inundation due to topographic depressions, overflow areas adjacent to ditches or streams, levee breaks or other sources would show more of the obligate or

facultative wet wetland plant species such as pacific silverweed, buttercup, or water fox tail. These latter species would be growing in a more robust and dense pattern in the wetter pasture areas. Infrequently inundated pasture areas and those with more frequent grazing would have more isolated clumps of soft rush, more diminutive concentrations of butter cup or silverweed and a more dominant pattern of the pasture grasses. Variations in plant densities and species depend on inundation patterns, topographic variation over horizontal and vertical distance, grazing pressure, and whether the hydrology is tidal, freshwater or a brackish combination. The Lower Rocky Gulch project reach has all of these hydrologic regimes.

Project Description: The project description source is from the Biological Assessment prepared by Aldaron Laird, dated February 2005, unless otherwise indicated. As shown in the attached drawings, the applicant plans to conduct the following activities over a ten-year permit duration period (Please refer to Sheets 5, 6 and 7 of 8 for reference):

- (1) Excavate 'excessive' sediment from existing stream channels of Lower Rocky Gulch – Working from the left bank (south and west side) of Rocky Gulch, remove accumulated sediments, vegetation and debris with an excavator to create the proposed channel cross section of 40 square feet (10 feet wide by 4 feet deep) from station 16+00 to station 25+50. Over a ten-year permit duration, periodically remove sediment from the Lower Rocky Gulch channels to maintain their geometry and prevent flooding of pasture. The applicant estimates that the 2,400 foot reach of Lower Rocky Gulch between stations 26+00 and 50+00 would need excavation every 4-6 years depending on sediment yield from upstream, winter high flow and sediment transport rates. Monitoring of the channel

condition would occur every 2-3 years; (Sheets 5, 6 and 7 of 8).

- (2) Excavate soil and vegetation to create two new sections of channel for a distance of 1,400 feet to eliminate unnatural 90-degree bends - excavate a new channel for Rocky Gulch, 10 feet wide by 3 feet deep, with meander bends from station 25+50 to 37+00, to increase channel capacity, provide fish passage, and improve transport of sediments and debris. The existing main channel from station 25+50 to 37+00 would become part of the floodplain as an abandoned channel (Sheets 5 and 7 of 8);
- (3) A new earthen dike 2,500 feet long would be constructed on grazed wetland pasture to serve as a setback 50 feet from the existing Rocky Gulch stream channel - Material for this new dike would be obtained by removing 2,500 feet of the existing dike between station 31+00 to 56+00 (Sheets 6 and 7 of 8);
- (4) Excavated material from activities No.s 1 and 2 would be used to rebuild an existing dike along the left bank of Rocky Gulch from station 6+00 to station 31+00 up to 9.5 feet elevation (NAVD 88 datum), thus raising the existing dike approximately 1.5 feet (Sheets 5 and 7 of 8);
- (5) Along the freshwater reach of Rocky Gulch, excavate the existing channel to remove accumulated sediments and vegetation and expand the channel cross section to approximately 8 square feet (four feet wide by two feet deep) from station 37+00 to 47+50 and excavate a new channel segment four feet wide by two feet deep between stations 49+50 to 56+00, relocating Rocky

Gulch away from Old Arcata Road to improve fish passage, riparian vegetation, and sediment transport efficiency. The old channel would then be backfilled (Sheets 6 and 7 of 8);

- (6) Grade a floodplain from station 31+00 to station 56+00 sloping downward toward the channel, but maintain an intermittent low elevation natural berm along the left bank of the channel, place cut material onto the relocated dike to increase dike elevation (Sheet 6 of 8);
- (7) Install ten- (10) in-stream fish habitat structure (log/boulder complexes) from station 31+00 to 56+00, following the California Department of Fish and Game's (CDFG) Salmonid Habitat Restoration Manual. The structures would be used to provide in-stream fish rearing habitat and to protect banks from erosion where bridges, cattle crossings, and PG&E pipelines cross the creek (Sheet 6 of 8);
- (8) Approximately 100 cubic yards (cy) of rock slope protection would be placed along 50 lineal feet of each side of the recently upgraded tide gate at station 6+00 (Sheet 5 of 8); and
- (9) The Lower Rocky Gulch stream channel would be dewatered or diverted during construction by maintaining the breached dike at station 46+00, diverting a small tributary at station 37+00 into the drainage ditch, and temporarily closing the tide gate. The dewatering work includes installation of temporary fish barriers (rock dams with metal pipe and flap gate), a fish screen, use of seine nets and backpack electro-fisher for fish relocation (fish to be relocated to Washington Gulch), and installation of

temporary drainage pipes at various locations (Sheets 5 and 6 of 8).

- (10) Construct three or more new tidal slough channels between station 10+00 and 15+00, and between station 18+00 and 25+00, to enhance estuarine habitats in Lower Rocky Gulch (Sheet 5 of 8).

Miscellaneous related activities: There would be construction of erosion-resistant stream cattle crossings and watering sites at station 31+00 and station 50+00 by hardening the channel bed and banks with rock and gravel. Concrete mattresses would simultaneously be installed at these same locations to protect a PG&E gas transmission line where it crosses underneath Rocky Gulch. This would involve excavating to expose the gas pipeline along a 50-foot section where the pipeline intersects Rocky Gulch creek. There would be installation of a 16-foot by 20-foot mattress of 4-inch Erco-Form blanket across the pipeline, and the mattress would be injected with concrete. The pipeline trench would then be backfilled and the concrete covered with quarry rock and crushed rock base across a 12-foot by 20-foot bank to form a solid, erosion resistant stream channel. Construction of the erosion control materials at the PG&E crossing would require placement of up to 10 cubic yards (CY) of concrete, 40 CY of quarry rock and 100 CY of crushed base rock (Sheet 8 of 8).

Throughout the project reach of Lower Rocky Gulch, riparian fencing, stream cattle crossings and armored watering access sites would be installed to reduce impacts from cattle grazing on stream, wetland and riparian habitats (Sheets 5 and 6 of 8).

NOTE: All in stream work as described above would be restricted to the work window of July 1 to October 31 of any year.

After-the-fact installation of new tide gate:

In November-December 2004, a new tide gate was installed at station 6+00 (without obtaining a Corps permit but permits were obtained from other state and local agencies) (Sheet 5 of 8). The new tide gate is a custom-fabricated, side-hinged aluminum gate mounted on the wing walls of the previous, old tide gate structure. The new tide gate has a muted opening with an adjustable, "guillotine-style" auxiliary door with a maximum aperture opening of 1-foot wide by 2-feet tall. The tide gate was installed at the downstream end of Rocky Gulch near the confluence of Washington Gulch, Rocky Gulch and Brainerd Slough. Previously there were two tide gate structures side-by-side at this location, only one was operational and the other was sealed. The operational tide gate was a barrier to anadromous salmonid migration, but leaks and tidal influence under the conditions at the time occurred upstream for 2,800 feet. The tide gate replacement involved the placement of 1 cy of concrete, in the repair of the existing concrete wing wall structure. Another 10 cy of concrete was placed to finish the remainder of the project. The intent of the new tide gate project is to allow for fish passage while maintaining the current volume of tidewater exchange. As of the date of this Public Notice, the new tide gate is operational.

Purpose and Need: The basic purpose of this project is to discharge fill into adjacent wetlands, remove sediment from tidal and non-tidal reaches, and create new tidal and non-tidal channels to restore Lower Rocky Gulch fisheries and general estuarine and wetland habitat. The periodic channel maintenance excavation work would maintain channel geometry and prevent flooding of the applicant's pasture. The overall purpose of this project is to re-establish fish passage for migrating and spawning anadromous fish in Rocky Gulch and maintain migration and rearing habitat for both adult and juvenile salmonids such as coho salmon, steelhead and resident coastal cutthroat trout.

Impacts: The project would result in the following excavation and fill impacts in Corps jurisdictional waters and wetlands:

The total acreage of land within the construction boundary is 26.8 acres. Temporary staging of heavy equipment or materials and access for equipment would cover 5.6 acres of land.

Existing earthen dike length along Rocky Gulch is 4,980 feet. The proposed earthen dike length including raising of existing dike and construction of a setback levee 50 feet from the existing levee would be 4,810 feet. The area coverage or footprint of both existing and proposed earthen dikes would remain at 1.6 acres in Corps jurisdictional wetlands.

The existing main channel of Rocky Gulch, both tidal and non-tidal, is 5,100 feet in length. After enlarging the main channel with deeper and wider excavation, the length would remain at 5,100 feet but the acreage of land occupied by the main channel would increase from 1.4 acres to 2.1 acres.

At least three or more new tidal channels would be excavated. There are existing channels 2,500 feet in total length, but their cross sections would be enlarged, creating a total of 0.60 acre of small tidal sloughs. The tidal channels may later contain submerged or emergent wetland plant species or possibly eelgrass (*Zostera marina*), a vegetated but submerged shallows plant species.

Most impacts would be temporary, in particular where there is construction road access, dewatering or diversion structures, a gas pipeline crossing, and other related project structures. After completion of the Lower Rocky Gulch project, disturbed sites would be restored to near original condition as possible. At other sites such as dike reconstruction, the impacts would remain within the original footprint of a structure unless a dike must be raised or

widened. Total permanent wetland and other waters of the U.S. impacts from the project are approximately 0.90 acre; offset by creation of new open water stream channels or sloughs and setback of levees to create a wider wetland and riparian corridor.

Mitigation: The applicant has proposed a number of measures to avoid, minimize or compensate for impacts to aquatic resources at the Lower Rocky Gulch Restoration Project. Prior to implementing any in-stream work, the proposed project reaches would be dewatered (water diverted around the work site). Any fish found in the existing channels would be relocated to adjacent waterways with suitable habitat not impacted by the restoration project. The following dewatering measures are proposed:

- Install temporary fish barriers at station 9+00, station 37+00 and station 46+00, including a rock dam with a small metal pipe and flap gate at station 9+00, a fish screen at station 37+00 just downstream of the Halvorsen Creek confluence, and a fish screen at station 46+00 at the entrance to the pasture drainage ditch. Once fish screens are installed, fish would be removed with a seine net in the tidal reach of the channel between stations 9+00 and 37+00. These fish would be relocated to Washington Gulch. Once fish are removed, the tide gate auxiliary door would be closed at high tide and any remaining fish from the channel would be salvaged as the tide recedes. These salvaged fish would be relocated to Washington Gulch. From station 37+00 to 46+00, if there were any stream flow left in the channel by summer 2005, all fish would be removed with a seine net and backpack electro-fisher. The fish would be relocated to the channel upstream of station 46+0.
- After work in the tidal zone is completed, the downstream fish barrier at station 9+00

would be removed and the tide gate auxiliary door would be opened to restore muted tidal flow to the lower slough channel. A temporary fish barrier would be installed at station 56+00, fish would be removed between station 46+00 and 56+00 with a seine net and backpack electro-fisher, and the fish would be relocated upstream of station 56+00.

- After fish removal, a temporary pipeline (2-4-inch diameter) would be installed at station 56+00 to divert flow to the head of the drainage ditch at station 46+00. The pipeline would extend about 1,000 feet down the pasture. Approximately $\frac{1}{2}$ (0.50) cubic feet per second of summertime flow is expected from Rocky Gulch at this station.
- At station 37+00 where the Halvorsen Creek culvert passes under Old Arcata Road, a temporary drainage pipe would be installed on the downstream end of the culvert to capture the tributary flow and route this water into the pasture drainage ditch. Approximately $\frac{1}{10}$ (0.10) cubic feet per second summertime flow is expected from this tributary.

Cattle Management Structures and Activities:

The applicant would install permanent exclusionary fencing to maintain a 25-50 foot set back from the west side of the stream to create a riparian buffer zone, and install temporary exclusionary fencing on the east side of the relocated dike to create riparian pasture zones for intermittent grazing. Permanent 12 by 20 foot cattle crossing bridges would be over waterways.

Post-Construction Site Remediation:

All temporary flow diversion structures, fish barriers, stream crossings (other than the cattle crossings), and silt fences would be removed at the end of project construction. Temporary access roads and equipment staging areas would be de-compacted and areas disturbed by impact would be hydro-seeded.

Future Channel Maintenance:

Monitoring would be conducted approximately every 2-3 years to determine if channel dredging is necessary. The monitoring would include field observations of changes in bed elevation, surveys of reference cross sections within the 2,400-foot maintenance reach, and measurements of water depths at reference locations (including pool habitat units). A reduction in channel cross section area of more than 20% of the bankfull capacity as determined by level surveys at up to 3-5 reference cross sections would trigger maintenance excavation.

As discussed previously in this Public Notice, the channel would be surveyed for fish presence and any fish present would be relocated to an undisturbed stream channel in the Bayside area prior to start of channel excavation.

All maintenance work would be performed during summer months at low stream discharge. A silt fence would be installed at the downstream end of the channel segment to be excavated and the silt fence would be kept in place for the duration of the channel maintenance activity. Once all excavation work is complete, the excavated material would be disposed of by spreading the material in a thin (< 3-inch layer) across the adjacent, surrounding pasture. This fill placement is intended to mimic the natural processes of sediment deposition across the valley floodplains. The entire channel maintenance excavation along the 2,400-foot reach would be accomplished within 2-3 working days for each year that maintenance is conducted.

Summary of impacts in Corps jurisdiction:

There would be no net loss of wetlands or other waters of the United States, including navigable waters of the United States from the implementation of the overall Lower Rocky Gulch Salmonid Habitat Restoration Project. There may be one-for-one trade-offs and exchange between palustrine wetlands and open water habitat (new tidal channels and new freshwater channel). Most of the impacts of this project would be temporary and involve on site restoration after the completion of the project.

3. COMPLIANCE WITH VARIOUS FEDERAL LAWS:

National Environmental Policy Act of 1969 (NEPA): The Corps will assess the environmental impacts of the proposed action in accordance with the requirements of the National Environmental Policy Act of 1969 (42 U.S.C. Section 4371 et. seq.), the Council on Environmental Quality's Regulations (40 C.F.R. Parts 1500-1508), and the Corps' Regulations (33 C.F.R. Part 230 and Part 325, Appendix B). Unless otherwise stated, the Environmental Assessment will describe only the impacts (direct, indirect, and cumulative) resulting from activities within the Corps' jurisdiction. The documents used in the preparation of the Environmental Assessment will be on file with the U.S. Army Corps of Engineers, Eureka Field Office, P.O. Box 4863, Eureka, California 95502.

Endangered Species Act of 1973 (ESA): Section 7 of the Endangered Species Act requires formal consultation with the U.S. Fish and Wildlife Service (FWS) and/or the National Marine Fisheries Service (NMFS) if a Corps permitted project may adversely affect any Federally listed threatened or endangered species or its designated critical habitat. Species and critical habitat currently identified as potentially impacted by the proposed project include coho

salmon (*Oncorhynchus kisutch*), and steelhead (*O. mykiss*). According to Aldaron Laird and other sources, Chinook salmon (*O. tshawytscha*) are not known to have runs in the past or present in Lower Rocky Gulch. Even coho salmon and steelhead, which have had historic runs in Rocky Gulch, are not known to inhabit Rocky Gulch for decades. Coho salmon, Chinook salmon and steelhead are all listed as threatened under the ESA by NMFS. Humboldt Bay and its tributaries including Lower Rocky Gulch are considered critical habitat for coho salmon and proposed critical habitat for steelhead and Chinook salmon by NOAA Fisheries. The Corps has initiated formal Section 7 consultation with NMFS regarding the potential impacts to listed anadromous fish, critical habitat and proposed critical habitat (Section 7 conference procedures) by letter dated April 14, 2005.

In addition, Lower Rocky Gulch is currently or historically, habitat for tidewater goby, a small fish listed as endangered by the U.S. Fish and Wildlife Service. The tidewater goby (*Eucyclogobius newberryi*) rarely exceeds 2 inches in length and most individuals complete their life cycle in one year. The goby has adapted to brackish shallow waters found in coastal lagoons and brackish marshes created by inflowing streams that seasonally are not subject to tidal action. Tidewater gobies prefer water with salinity less than 10 parts per thousand (ppt), but can be found in water of 0-41 ppt. The gobies prefer shallow water 10-39 inches deep with substrate of sand and silt surrounded by beds of emergent wetland vegetation. Open water areas are needed for reproduction and vegetated areas for over wintering (Biological Assessment, Aldaron Laird, February 2005). Individuals of tidewater goby have been found in Jacoby and Freshwater Creeks and there may have been historic populations in Mad River Slough. All of these streams are tributaries to Humboldt Bay. Aldaron Laird, from his sources, states that the tidewater goby has not been found in Rocky Gulch. Installation of the new tide gate in late

2004, however, may provide limited new opportunities for not only tidewater goby fish passage but salmonid fish passage now that the tide gate is operational. The Corps initiated formal Section 7 consultation with the FWS by letter dated April 14, 2005 regarding the Lower Rocky Gulch Salmonid Access and Habitat Project's potential impacts on the listed tidewater goby.

Magnuson-Stevens Fisheries Conservation and Management Act: The NMFS and several interagency fisheries councils have designated specific water bodies as Essential Fish Habitat (EFH) in accordance with the Magnuson-Stevens Fisheries Conservation and Management Act. Specific EFH concerns associated with this proposal include EFH on Humboldt Bay and its tributaries, including Rocky Gulch, for coho salmon, Chinook salmon and a variety of estuarine and marine fish. Coordination with the NMFS in regard to EFH will be initiated concurrently with the ESA consultation, if necessary.

Clean Water Act of 1972 (CWA):

a. Water Quality: Under Section 401 of the Clean Water Act (33 U.S.C. Section 1341), an applicant for a Corps permit must first obtain a State water quality certification before a Corps permit may be issued. The applicant has provided the Corps with evidence that he has submitted a valid request for State water quality certification to the California Regional Water Quality Control Board (RWQCB), North Coast Region. No Corps permit will be granted until the applicant obtains the required water quality certification. The Corps may assume that water quality certification has been obtained if the State fails or refuses to act on a valid request for certification within 60 days after the receipt of a valid request, unless the District Engineer determines a shorter or longer period is reasonable for the State to act.

Those parties concerned with any water quality issue that may be associated with this project should write to the Executive Officer, California Regional Water Quality Control Board, North Coast Region, 5550 Skylane Boulevard, Suite A, Santa Rosa, California 95403; by the close of the comment period of this Public Notice.

b. Alternatives: Evaluation of this proposed activity's impact includes application of the guidelines promulgated by the Administrator of the Environmental Protection Agency under Section 404(b)(1) of the Clean Water Act (33 U.S.C. Section 1344(b)). The applicant has submitted an Analysis of Alternatives for the project and it will be reviewed for compliance with the guidelines. The applicant states that there are no practicable alternatives for his project. An evaluation has been made by this office under the guidelines and it was determined that the proposed project is water dependent.

Coastal Zone Management Act of 1972 (CZMA): Section 307 of the Coastal Zone Management Act requires the applicant to certify that the proposed project is consistent with the State's Coastal Zone Management Program, if applicable. No Corps permit will be issued until the State has concurred with the applicant's certification. Coastal development issues should be directed to the California Coastal Commission (CCC), 710 E Street, Eureka, California 95502.

National Historic Preservation Act of 1966 (NHPA): The San Francisco District Office Archaeologist will be contacted and asked to survey data on file with various City, State and Federal agencies, as well as repositories of archaeological information for the North Coast area and project vicinity from the Yurok Tribe and other local Indian Tribes. If surveys indicate the potential for presence of prehistoric, historic or other cultural areas of importance in the project vicinity, the Corps will consult with the Tribal Historic Preservation Office

(THPO) of the Yurok Tribe or State Historic Preservation Office (SHPO) of the State of California in accordance with Section 106 of the National Historic Preservation Act, to assess project impacts on cultural resources. No construction shall begin until consultation associated with the NHPA is complete.

4. PUBLIC INTEREST EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impact, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits that reasonably may be expected to accrue from the proposed activity must be balanced against its reasonably foreseeable detriments. All factors that may be relevant to the proposal will be considered, including its cumulative effects. Among those factors are: conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

5. CONSIDERATION OF COMMENTS: The Corps of Engineers is soliciting comments from the public, Federal, State and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment

and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest in the proposed activity.

6. SUBMISSION OF COMMENTS: Interested parties may submit, in writing, any comments concerning this activity. Comments should include the applicant's name and the number and the date of this Public Notice, and should be forwarded so as to reach this office within the comment period specified on Page 1. Comments should be sent to U.S. Army Corps of Engineers, San Francisco District, Regulatory Branch, 333 Market Street, San Francisco, California 94105-2197. It is the Corps' policy to forward any such comments that include objections to the applicant for resolution or rebuttal. Any person may also request, in writing, within the comment period of this Public Notice that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Additional details may be obtained by contacting the applicant whose name and address are indicated in the first paragraph of this Public Notice or by contacting David Ammerman of our office at telephone 707-443-0855 or E-mail: David.A.Ammerman@usace.army.mil. Details on any changes of a minor nature that are made in the final permit action will be provided upon request.



Figure 1. Project location, from U.S.G.S. Arcata South quadrangle.

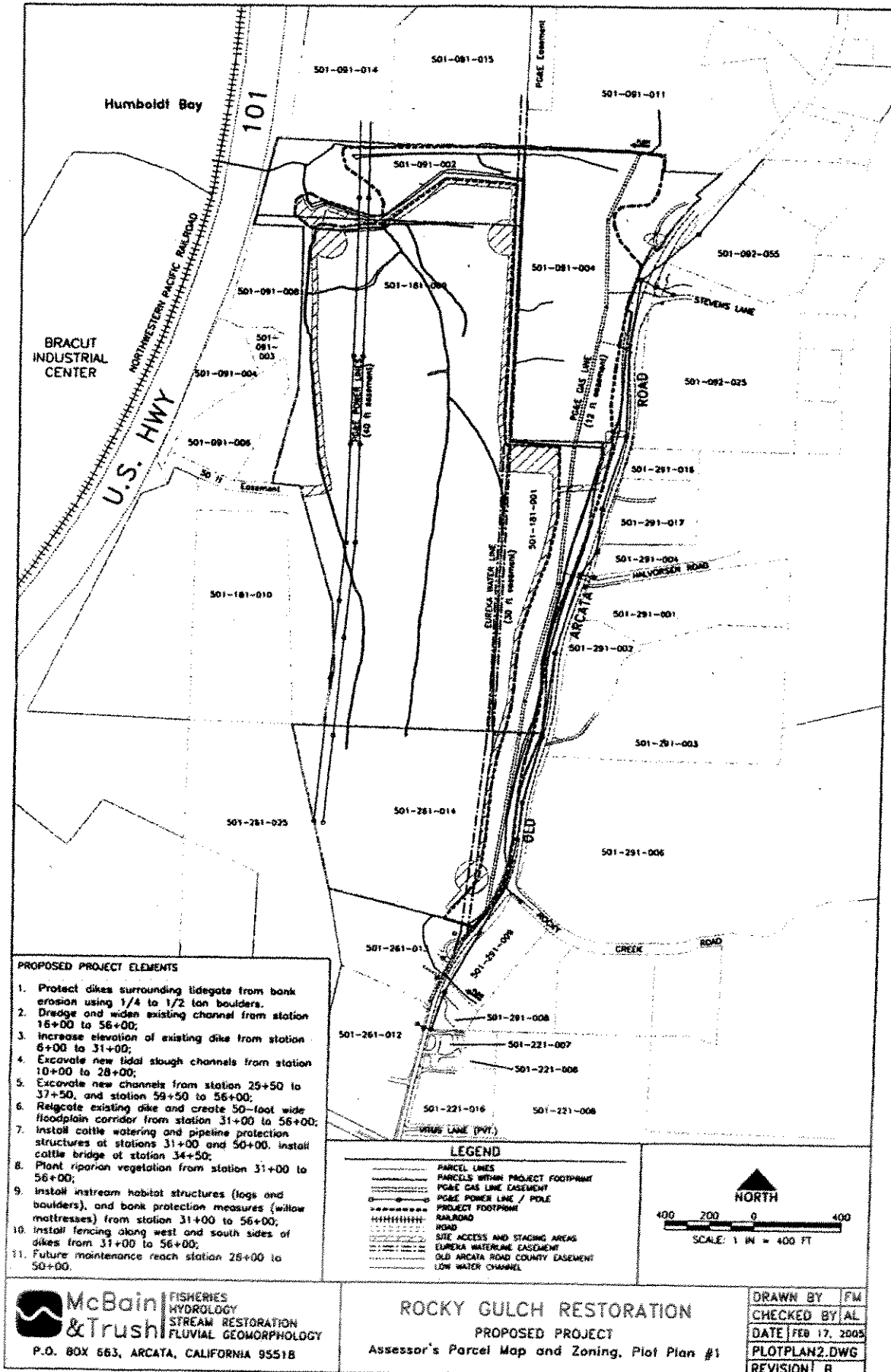
Purpose: Salmonid Habitat Restoration &
Prevention of Ag Land Flooding, In: Lower
Rocky Gulch, At: Rodoni Property, Bayside
Co: Humboldt, State: CA, Application By:
Roger and Johanna Rodoni; Dated: 2-17-05

Aldaron Laird 02/16/2005

Purpose: Salmonid Habitat Restoration & Prevention of Ag Land Flooding, In: Lower Rocky Gulch, At: Rodoni Property, Bayside Co: Humboldt, State: CA, Application By: Roger and Johanna Rodoni; Dated: 2-17-05

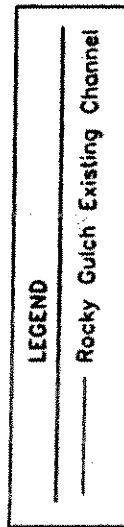
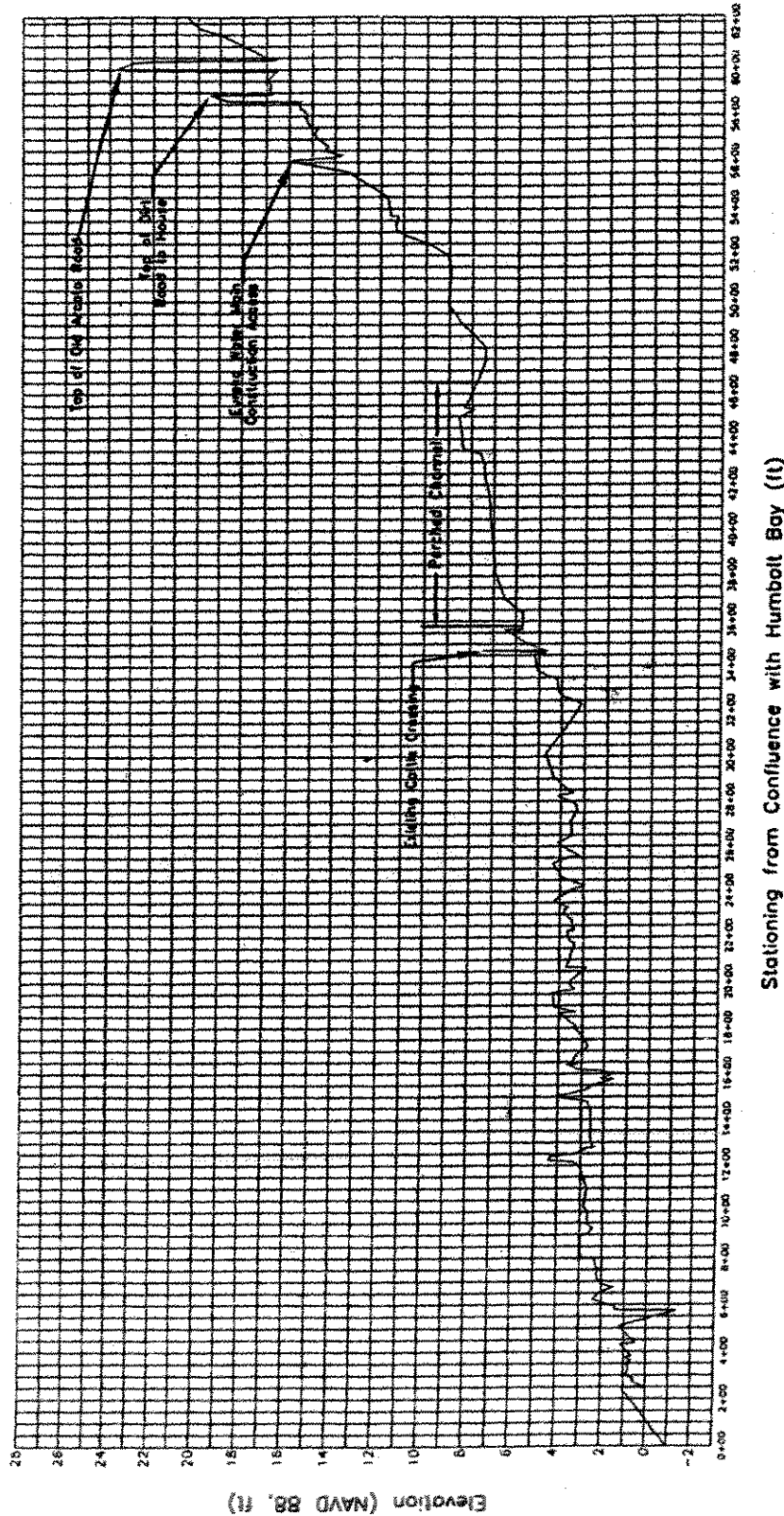
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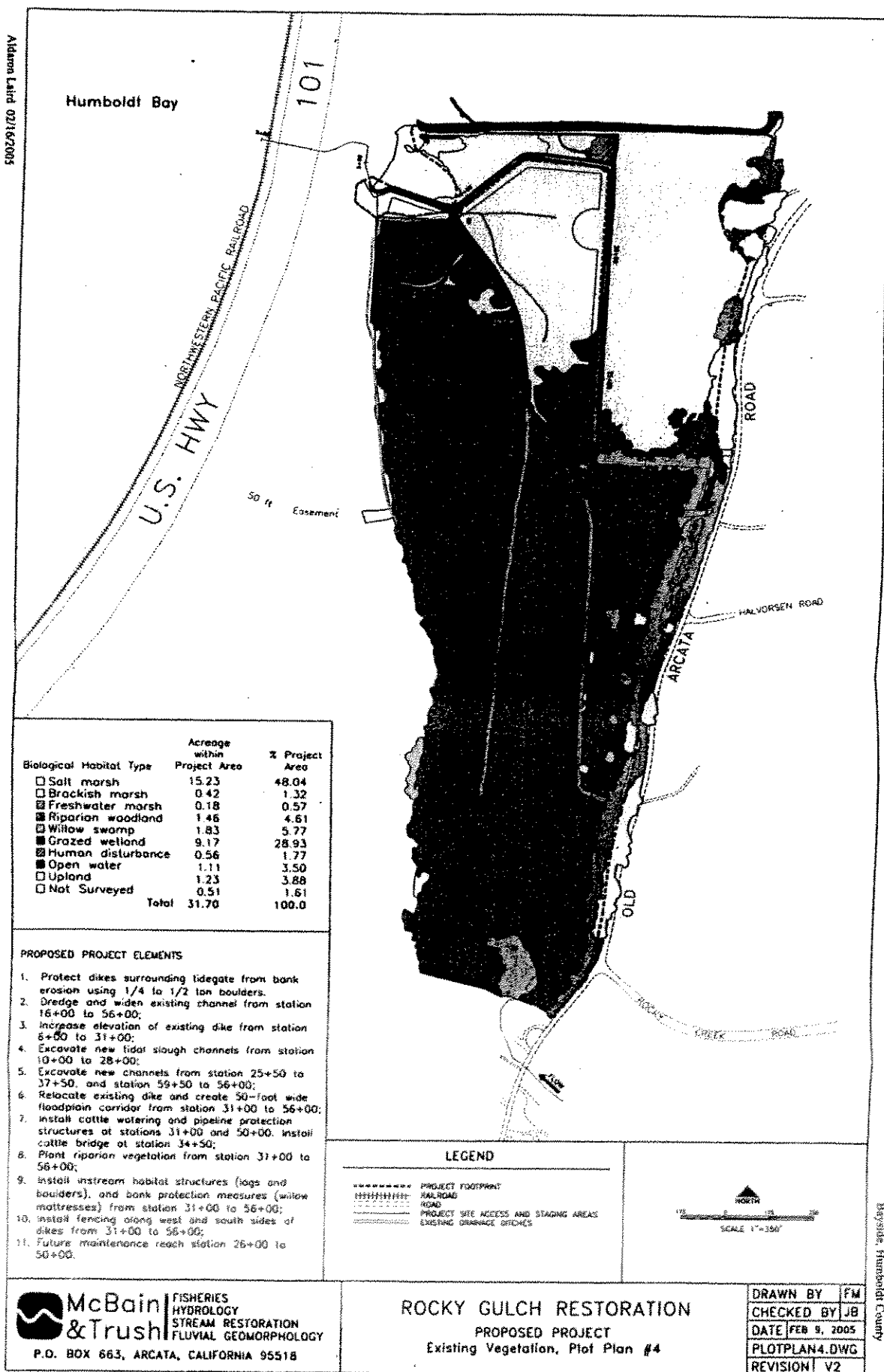


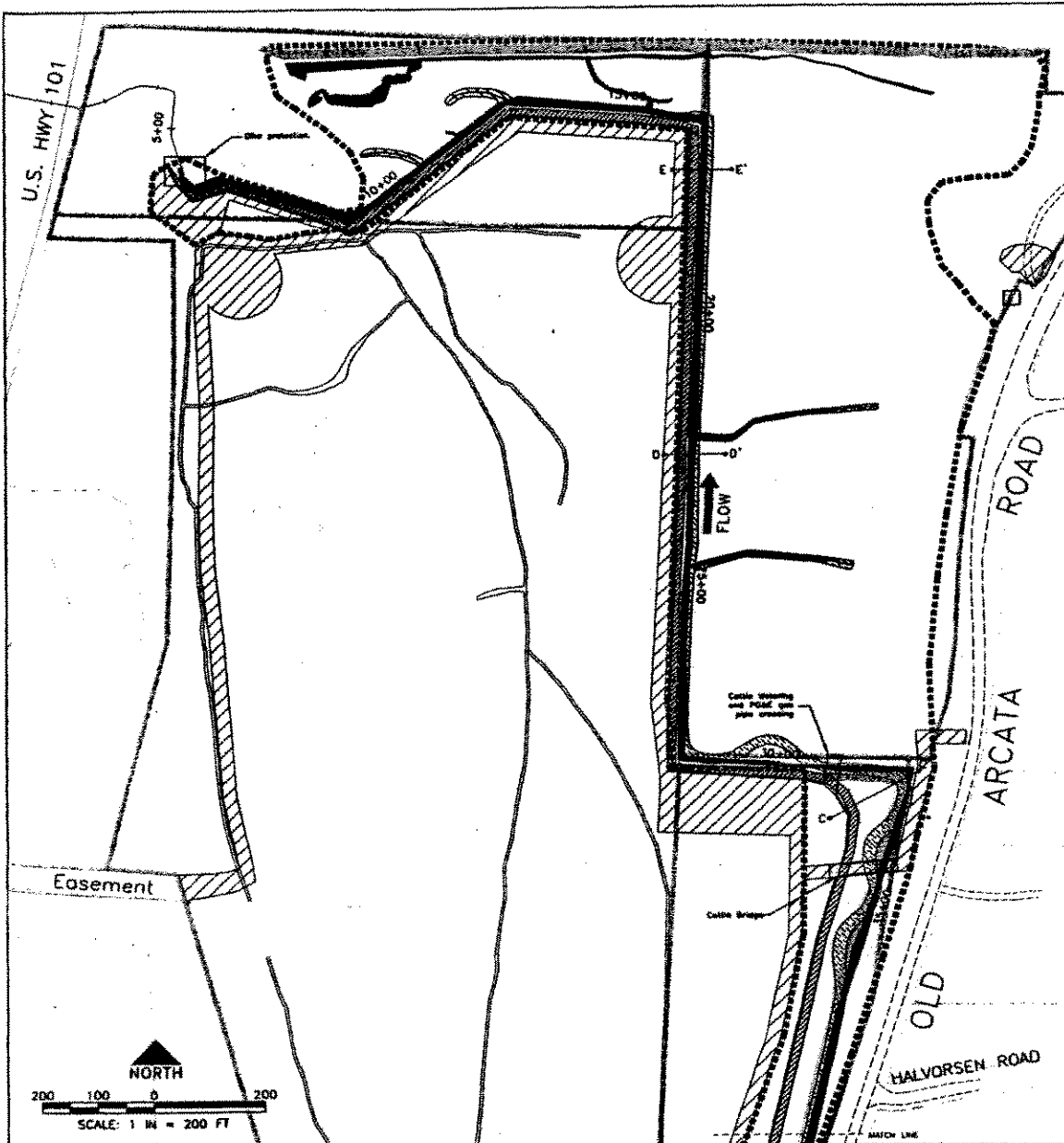
Purpose: Salmonid Habitat Restoration &
Prevention of Ag Land Flooding, In: Lower
Rocky Gulch, At: Rodoni Property, Bayside
Co: Humboldt, State: CA, Application By:
Roger and Johanna Rodoni; Dated: 2-17-05

Figure 2. Rocky gulch thalweg profile, prepared in 2003

Sheet 3 of 8

Purpose: Salmonid Habitat Restoration &
Prevention of Ag Land Flooding, In: Lower
Rocky Gulch, At: Rodoni Property, Bayside
Co: Humboldt, State: CA, Application By:
Roger and Johanna Rodoni; Dated: 2-17-05





PROPOSED PROJECT ELEMENTS

1. Protect dikes surrounding tidegate from bank erosion using 1/4 to 1/2 ton boulders.
2. Dredge and widen existing channel from station 16+00 to 56+00;
3. Increase elevation of existing dike from station 6+00 to 31+00;
4. Excavate new tidal slough channels from station 10+00 to 28+00;
5. Excavate new channels from station 25+50 to 37+50, and station 59+50 to 56+00;
6. Relocate existing dike and create 50-foot wide floodplain corridor from station 31+00 to 56+00;
7. Install cattle watering and pipeline protection structures at stations 31+00 and 50+00. Install cattle bridge at station 34+50;
8. Plant riparian vegetation from station 31+00 to 56+00;
9. Install instream habitat structures (logs and boulders), and bank protection measures (willow mattresses) from station 31+00 to 56+00;
10. Install fencing along west and south sides of dikes from 31+00 to 56+00;
11. Future maintenance reach station 26+00 to 50+00.

Areas and Lengths for Rocky Gulch Existing and Proposed Conditions within Construction Boundary

	Length (ft)		Area (acres)	
	Existing	Proposed	Existing	Proposed
Dike	4,980	4,810	1.6	1.6
Main Channel	5,100	5,100	1.4	2.1
Slough Channels	2,500	2,500	0.4	0.6
Staging and Access				5.6
Construction Boundary				26.8

Construction Volume Estimates (Cu. Yds.)

Description	Cut		20% on Fill	Net
	Existing	Proposed		
Dike and Main Channel	4,850	4,550	900	600 Fill
Slough Channels	600			600 Cut
Total	5,450	4,550	900	0

LEGEND

-----	PARCELS WITHIN PROJECT FOOTPRINT	-----	EXISTING CHANNEL
-----	PROJECT FOOTPRINT/CONSTRUCTION BOUNDARY	-----	EXISTING DIKE
-----	RAILROAD	-----	PROPOSED CHANNEL DREDGING
-----	ROAD	-----	PROPOSED NEW CHANNEL CONSTRUCTION
-----	SITE ACCESS AND STAGING AREAS	-----	PROPOSED DIKE CONSTRUCTION
-----	PROPOSED RIPARIAN FENCING	-----	PROPOSED CROSSING AND/OR WATERING LOCATION FOR CATTLE AS DENOTED IN ITEM NUMBER 7 OF PROJECTS ELEMENTS
-----	CROSS SECTION		

McBain & Trush FISHERIES HYDROLOGY
STREAM RESTORATION
FLUVIAL GEOMORPHOLOGY
P.O. BOX 663, ARCATA, CALIFORNIA 95518

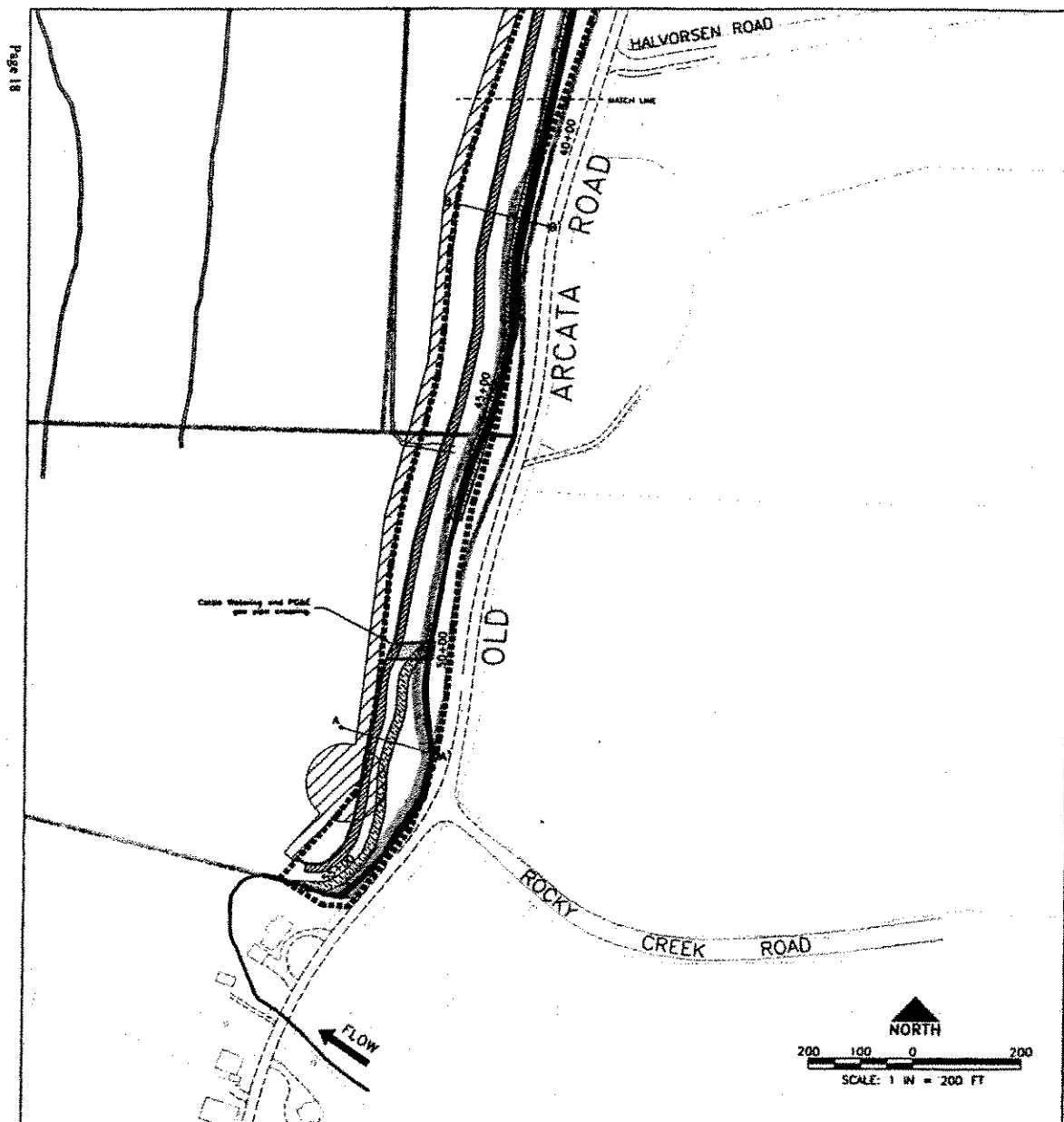
ROCKY GULCH RESTORATION
PROPOSED PROJECT
Existing and Proposed Improvements, Plot Plan #3a

DRAWN BY	FM
CHECKED BY	AL
DATE	JAN 28, 2005
PLOT	PLAN3V2.DWG
REVISION	V2

Biological Assessment: Lower Rocky Gulch, Anadromous Salmonid Access and Habitat Restoration Project
BaySide, Humboldt County

Purpose: Salmonid Habitat Restoration &
Prevention of Ag Land Flooding, In: Lower
Rocky Gulch, At: Rodoni Property, BaySide
Co: Humboldt, State: CA, Application By:
Roger and Johanna Rodoni; Dated: 2-17-05

Figure 11. Project plot plan 1 of 3.



PROPOSED PROJECT ELEMENTS

1. Protect dikes surrounding tidegate from bank erosion using 1/4 to 1/2 ton boulders.
2. Dredge and widen existing channel from station 16+00 to 56+00;
3. Increase elevation of existing dike from station 6+00 to 31+00;
4. Excavate new tidal slough channels from station 10+00 to 28+00;
5. Excavate new channels from station 25+50 to 37+50, and station 59+50 to 56+00;
6. Relocate existing dike and create 50-foot wide floodplain corridor from station 31+00 to 56+00;
7. Install cattle watering and pipeline protection structures at stations 31+00 and 50+00. Install cattle bridge at station 34+50;
8. Plant riparian vegetation from station 31+00 to 56+00;
9. Install instream habitat structures (logs and boulders), and bank protection measures (willow mattresses) from station 31+00 to 56+00;
10. Install fencing along west and south sides of dikes from 31+00 to 56+00;
11. Future maintenance reach station 26+00 to 50+00.

Areas and Lengths for Rocky Gulch Existing and Proposed Conditions within Construction Boundary

	Length (ft)		Area (acres)	
	Existing	Proposed	Existing	Proposed
Dike	4,980	4,810	1.6	1.6
Main Channel	5,100	5,100	1.4	2.1
Slough Channels	2,500	2,500	0.4	0.6
Staging and Access				5.6
Construction Boundary				26.8

Construction Volume Estimates (Cu. Yds.)

	Cut	Fill	20% on Fill	Net
Dike and Main Channel	4,850	4,350	900	600 Fill
Slough Channels	600			600 Cut
Total	5,450	4,350	900	0

LEGEND

PARCELS WITHIN PROJECT FOOTPRINT	EXISTING CHANNEL
PROJECT FOOTPRINT/CONSTRUCTION BOUNDARY	EXISTING DIKE
RAILROAD	PROPOSED CHANNEL DREDGING
ROAD	PROPOSED NEW CHANNEL CONSTRUCTION
SITE ACCESS AND STAGING AREAS	PROPOSED DIKE CONSTRUCTION
PROPOSED RIPARIAN FENCING	PROPOSED CROSSING AND/OR WATERING LOCATION FOR CATTLE AS DENOTED IN ITEM NUMBER 7 OF PROJECTS ELEMENTS
CROSS SECTION	

McBain & Trush FISHERIES HYDROLOGY
STREAM RESTORATION
FLUVIAL GEOMORPHOLOGY
P.O. BOX 663, ARCATA, CALIFORNIA 95518

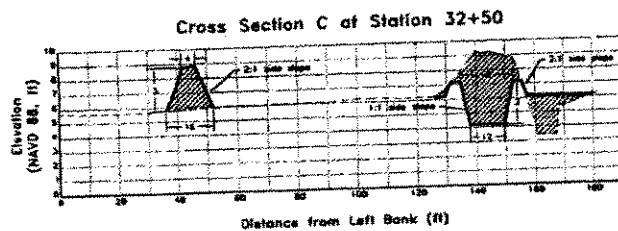
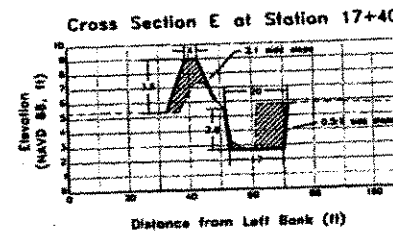
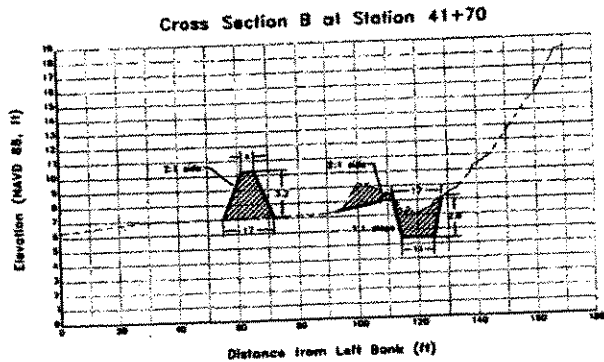
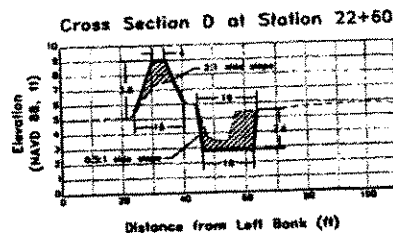
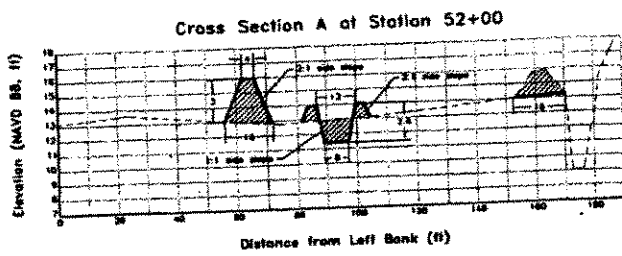
ROCKY GULCH RESTORATION
PROPOSED PROJECT
Existing and Proposed Improvements, Plot Plan #3b

DRAWN BY	FM
CHECKED BY	AL
DATE	JAN 26, 2005
PLOT PLAN	3V2.DWG
REVISION	B

Purpose: Salmonid Habitat Restoration & Prevention of Ag Land Flooding, In: Lower Rocky Gulch, At: Rodoni Property, Bayside Co: Humboldt, State: CA, Application By: Roger and Johanna Rodoni; Dated: 2-17-05

Sheet 7 of 8

Biological Assessment Lower Rocky Gulch, Anadromous Salmonid Access and Habitat Restoration Project Bayside, Humboldt County



Channel Dimensions (ft)				
Station	Top Width	Depth	Side Slope	
15+50-23+00	20-21	3	0.5:1	
23+00-26+00	19-20	3	0.5:1	
26+00-32+00	17-19	3	0.5:1	
32+00-47+00	15-17	2.5-3	1:1	
49+50-56+50	12-13	2.5-3	1:1	

Note: A riparian berm will need to be retained 1 ft high and 3-4 ft wide between station 31+00 and 56+50 to provide necessary channel depth.

PROPOSED PROJECT ELEMENTS

1. Protect dikes surrounding tidelgate from bank erosion using 1/4 to 1/2 ton boulders.
2. Dredge and widen existing channel from station 18+00 to 56+00;
3. Increase elevation of existing dike from station 6+00 to 31+00;
4. Excavate new tidal slough channels from station 10+00 to 28+00;
5. Excavate new channels from station 25+50 to 37+50, and station 59+50 to 56+00;
6. Relocate existing dike and create 50-foot wide floodplain corridor from station 31+00 to 56+00;
7. Install cattle watering and pipeline protection structures at stations 31+00 and 50+00. Install cattle bridge at station 34+50;
8. Plant riparian vegetation from station 31+00 to 56+00;
9. Install instream habitat structures (logs and boulders), and bank protection measures (willow mattresses) from station 31+00 to 56+00;
10. Install fencing along west and south sides of dikes from 31+00 to 56+00;
11. Future maintenance reach station 26+00 to 50+00.

Areas and Lengths for Rocky Gulch Existing and Proposed Conditions within Construction Boundary

	Length (ft)		Area (acres)	
	Existing	Proposed	Existing	Proposed
Dike	4,980	4,810	1.6	1.6
Main Channel	5,100	5,100	1.4	2.1
Slough Channels	2,500	2,500	0.4	0.6
Staging and Access				5.6
Construction Boundary				26.8

Construction Volume Estimates (Cu. Yds.)

Description	Cut	Fill	20% on Fill	Net
Dike and Main Channel	4,850	4,550	900	600 Fill
Slough Channels	600			600 Cut
Total	5,450	4,550	900	0

LEGEND

PROPOSED CUT
PROPOSED FILL

McBain & Trush FISHERIES
HYDROLOGY
STREAM RESTORATION
FLUVIAL GEOMORPHOLOGY
P.O. BOX 663, ARCATA, CALIFORNIA 95518

ROCKY GULCH RESTORATION
PROPOSED PROJECT
Existing and Proposed Improvements, Plot Plan #3c

DRAWN BY	FM
CHECKED BY	AL
DATE	JAN 26, 2005
PLOT PLAN	3V2.DWG
REVISION	B

Figure 13. Project plot plan 3 of 3.

Diagram illustrating a rock pile structure for erosion control and pipeline protection. The structure is composed of a central core of 1 1/2 ton rock, surrounded by a gravel substrate and a gasline encasement. The structure is anchored into the bank with 1/4 ton rock and 4" angular rock. The structure is also anchored into the bank with 1/4 ton rock and 4" angular rock. The structure is also anchored into the bank with 1/4 ton rock and 4" angular rock.

Labels and dimensions include:

- GRAVEL SUBSTRATE
- FLOW
- 1 1/2 TON RSP WITH 4" ANGULAR ROCK COMPACTED ANCHOR WITH BIO ENGINEERING (1 1/2 TON ROCK TO EXTEND ABOVE BANK FULL CHANNEL AND 8" TO 8" INTO BANK)
- GASLINE ENCASEMENT
- POGE GAS PIPELINE 8" DIAMETER
- POGE EASEMENT AND CATTLE WATERING CORRIDOR
- TOP OF BANK
- 10' MIN
- 18" - 24" REDWOOD OR CEDAR - 2 LOGS (TYP)
- CABLED BOULDER PAIR WITH 1/2 TO 1 TON BOULDERS WITH 4" ANGULAR ROCK INTERMIXED
- EMBED BOULDERS 8" TO 8" INTO BANKS ANCHOR WITH BIO ENGINEERING (TYP)
- THALWEG
- TOP OF DUNE
- FILL RSP RAP VOIDS WITH GRAVEL AND 4" ANGULAR ROCK COMPACTED TO FINISHED GRADE
- CABLES (See detail sheet 10)

NOT TO SCALE

PG&E PIPE CROSSING—SECTION

The diagram illustrates a cross-section of a pipe crossing with the following labeled components and dimensions:

- PG&E PIPE CROSSING—SECTION**: Main title of the diagram.
- SOD REPLACEMENT**: Points to the top layer of the crossing.
- 7-3" GRAVEL LAYER TO FILL VOIDS IN BOULDERS**: Points to the layer immediately above the pipe.
- MIX 3' EMBEUREMENT**: Points to the top edge of the crossing structure.
- ANCHOR FABRIC END**: Points to the fabric layer on the right side.
- DESIGN CHANNEL FINISH GRADE**: Points to the top surface of the crossing.
- DESIGN LOW FLOW CHANNEL FINISH GRADE**: Points to the inner channel surface.
- 5' TOP RISE**: Points to the vertical height of the crossing structure.
- 4" MIN. 6" GAS LINE**: Points to the pipe itself.
- UNDERLAINED BATHY**: Points to the layer below the pipe.
- CONCRETE PER PROJECT SPECIFICATIONS**: Points to the base layer.
- COMPACT BLENDED TO 90% RELATIVE COMPACTION**: Points to the bottom layer.
- 4" MIN. 6" GAS LINE**: Points to the pipe.
- ALL DIMS (TYP)**: Indicates that dimensions are typical.
- NOT TO SCALE**: A note at the bottom left.

Purpose: Salmonid Habitat Restoration & Prevention of Ag Land Flooding, In: Lower Rocky Gulch, At: Rodoni Property, Bayside Co: Humboldt, State: CA, Application By: Roger and Johanna Rodoni; Dated: 2-17-05